DEPARTMENT OF ELECTRICAL ENGINEERING

GOVERNMENT POLYTECHNIC, BARGARH

LESSON PLAN

ELECTRICAL WORKSHOP

6th SEMESTER

ELECTRICAL ENGINEERING

PREPARED BY

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LECTURER (ELECTRICAL)

DEPARTMENT OF ELECTRICAL ENGINEERING

VISION:

To produce Electrical Engineer professionals who can contribute for socio-economic and technological development to meet global needs.

MISSION:

M1 - To strengthen academic infrastructure leading to quality professional by using modern technical tools and technologies.

M2 - To impart innovative knowledge among the students and make more industry-institution programs to make them successful professionals for serving the society.

M3 - To provide a learning environment to improve problem solving abilities, leadership abilities, ethical responsibilities and lifelong learning.

PROGRAM EDUCATIONAL OBJECTIVES (PEOS)

PEO1: Apply electrical engineering knowledge and practical skills to solve well-defined engineering problems using modern tools and techniques.

PEO2: Perform effectively in industry and society as competent junior engineer, supervisors, or entrepreneurs with ethical and sustainable engineering practices.

PEO3: Demonstrate teamwork, communication, leadership, and project management skills in professional engineering activities.

PEO4: Engage in lifelong learning and adapt to emerging technologies for career growth and higher education.

PROGRAM SPECIFIC OUTCOMES

The electrical diploma engineers will be able to:

PSO1:-Apply the fundamentals of mathematics, science and engineering knowledge to identify, formulate, design and investigate engineering problems of electric circuits, analog and digital electronics, control system, electrical machines and power system.

PSO2:- Apply the appropriate techniques and modern engineering hardware and software tools in electrical engineering to engage in life-long learning and to successfully adapt in multidisciplinary environments.

PSO3:-Work professionally in power systems engineering, Electrical machinery and electrical circuit.

Week	Experiment / Activity
1	Laboratory Orientation, Workshop Safety, Identification of Electrical Tools, Cables, Wires and Accessories
2	Identification of Single-core, Twin-core, Three-core & Four-core PVC, VIR and Weather-proof (WP) Wires. Preparation of Britannia Joint and Married Joint
3	Cutting Copper & Aluminium Cables and Crimping Lugs (2.5 mm^2 to 6 mm^2)
4	Connection and Testing of Fluorescent Lamp, CFL, LED Lamp, Sodium Vapour Lamp, Mercury Vapour Lamp and Measurement of Illumination (Lux Meter)
5	Study of Battery Charger and Charging of Lead Acid Battery (Measurement of Charging Voltage, Current & Specific Gravity)
6	Residential Wiring using CTS & Conduit Wiring System (Two-Point Wiring)
7	Testing of Residential Wiring using Test Lamp and Megger
8	**Viva-I**, Record Verification and Fault Finding & Repairing of Ceiling Fan
9	Fault Finding & Repair of D.C. Generator (Preparation of Inventory List)
10	Fault Finding & Repair of D.C. Motor Starter and A.C. Motor Starter
11	Dismantling, Overhauling and Assembly of Single-Phase Induction Motor with Performance Testing
12	Dismantling, Overhauling and Assembly of Three-Phase Squirrel Cage Induction Motor
13	Dismantling Overhauling and Assembly of Three-Phase Slip Ring (Phase Wound) Induction Motor
14	Overhauling of Single-Phase and Three-Phase Variac
15	**Viva-II**, Practical Test, Record Submission and Internal Assessment

Faculty Signature

HOD Signature